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MEMORANDUM-PER ADDENDUM

TO: Doug Grindberg, USDA-RD

FROM: Sam Fink, PE (Lic. MN, NE)

DATE: December 13, 2022

RE: City of Silver Lake-PER Addendum 2
SEH No. SILAK 152875 5.00

Representatives from the United States Department of Agriculture - Rural Development (RD) (Terry Louwagie, Doug Grindberg, and Ben Skaaland) met with Short Elliott Hendrickson (SEH) representatives (John Rodeberg, Jordan Van Oort, and Sam Fink) on Wednesday, November 30, 2022 to discuss funding availability for the proposed project in Silver Lake, Minnesota. RD requested SEH to address various items in the Preliminary Engineering Report dated November 12, 2020 (Revised August 11, 2022) (PER) prior to RD's approval of the project funding. This addendum to the PER is intended to address those topics.

Construction elements and localized areas were excluded from the proposed project's recommended alternatives to accommodate for RD's allowable funding allocation. Following conversations between representatives of the City of Silver Lake, People Service, RD, and SEH, the items and areas omitted from the project are as follows:

- Water treatment plant
- Water storage facility
- Raw water main for well rehabs
 - Well 1 and Well 2 rehabilitations are proposed to remain in the project scope
- Miscellaneous line items from:
 - Cleveland lift station
 - Main Street lift station
 - Stabilization ponds
- Sanitary collection, water distribution, and storm sewer along:
 - Main Street east of Lake Avenue
 - Highway 7, north of Lane Avenue (northwest corner of project area)

Based on these conversations and omissions, attached are revised versions of Tables 4-1, 4-3, 4-4, 4-17, and 6-2. A new estimated total project cost table with updated financial breakout information based on the outline provided by Ben Skaaland is provided. A new line item for the assessment process and construction staking services has been added to the applicable tables above considering these services should not be included under the engineering fees umbrella. An updated cost estimate detailing the wastewater improvements, and a modified map with total capital costs for each phase of the project is included. The detailed wastewater improvements cost estimate identifies omitted and remaining line items from the Cleveland lift station, Main Street lift station, and stabilization ponds.

Engineers | Architects | Planners | Scientists

Short Elliott Hendrickson Inc., 11 Civic Center Plaza, Suite 200, Mankato, MN 56001-7710
SEH is 100% employee-owned | **sehinc.com** | 507.388.1989 | 877.316.7636 | 888.908.8166 fax

Table 2-13 has been revised to reflect the historical utility operation and maintenance (O&M) costs discounting depreciation. Projected O&M costs through final completion are detailed in a new table attached. Table 6-5 has been revised to reflect the short-lived assets for the updated project scope (omissions due to change in project scope are highlighted). There are no changes to Table 6-6 as the change in scope did not affect the short-lived assets for the proposed wastewater system

The proposed sanitary collection system will be constructed in kind with the existing sanitary collection system (i.e. pipe sizes of the new sewer will match the existing). Figures 3 and 8 from the PER have been included in this addendum to address pipe sizes for the existing and proposed sewer sizes.

The existing streets throughout town were assumed to have four inches of bituminous. All replaced street sections are proposed to match the four inches of bituminous except for Main Street (County Road 92) east of Grove Avenue, which is proposed to have six inches of bituminous. However, this stretch of road has been omitted from the project per this addendum. Therefore, all street sections will be replaced with four inches of bituminous. Proposed street section includes 24 inches of select granular backfill and eight inches of Class V base.

Based on the updated proposed project scope and current timeframe, below is a revised version of Table 6-1 for the completion of phases one through three.

Table 6-1 – Proposed Schedule

Milestone	Date
Public Hearing	June 4, 2020
PER/ER Completion: submittal to USDA-RD	October 2020
USDA-RD PER Review (4+ months)	October 2020–December 2022
USDA-RD Funding Obligation	December 2022
Owner/Engineering Agreement	January-February 2023
Preliminary Engineering Design (10 months)	March 2023 - January 2024
Final Engineering Design (8 months)	February-September 2024
USDA-RD Legal Review (6 months)	April-October 2024
USDA-RD Legal/Engineering Approval (3 months)	October-December 2024
Bidding	January 2025
Award Project	March 2025
Start Project	May 2025
Substantially Complete Project	November 2027
Final Completion	July 2028

SWF

Enclosures

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Table 4-1 – Estimated Construction Cost for Open Cut Alternative

Street	From	To	Estimated Construction Cost				
			Wastewater Eligible	Water Eligible	Storm Eligible	City Cost (Not Eligible)	Total
LANE AVE	MAIN ST	T.H. 7	\$455,058	\$407,842	\$451,267	\$151,271	\$1,465,439
FRANK ST	LANE AVE	LAKE AVE	\$933,262	\$828,537	\$501,042	\$364,881	\$2,627,722
CENTER ST	LANE AVE	SUMMIT AVE	\$496,858	\$720,682	\$937,922	\$356,044	\$2,511,506
OLIVER AVE	MAIN ST	FRANK ST	\$253,459	\$302,328	\$375,502	\$99,443	\$1,030,731
PARK AVE	MAIN ST	T.H. 7	\$429,180	\$549,989	\$45,110	\$209,559	\$1,233,839
QUEEN AVE	CENTER ST	FRANK ST	\$135,729	\$145,569	\$14,990	\$43,240	\$339,528
RICE AVE	CENTER ST	FRANK ST	\$115,541	\$126,448	\$11,578	\$37,804	\$291,372
SUMMIT AVE	CENTER ST	FRANK ST	\$145,008	\$113,007	\$67,656	\$59,295	\$384,966
CLEVELAND AVE	PARK AVE	EAST ST	\$757,274	\$688,135	\$213,023	\$271,426	\$1,929,858
TOWER ST	CLEVELAND AVE	MAIN ST	\$97,807	\$185,649	\$22,885	\$97,997	\$404,338
LAKE AVE	MERRILL ST	MAIN ST	\$301,529	\$307,557	\$317,854	\$210,046	\$1,136,986
MERRILL AVE & EAST OF GROVE	LAKE ST	GROVE AVE	\$48,125	\$62,355	\$138,781	\$16,534	\$265,795
CENTER ST/NE EAST AVE/ FRANK ST	GROVE AVE	GROVE AVE	\$448,177	\$462,585	\$48,853	\$142,477	\$1,102,092
C.R. 92	W OF GROVE ST	W OF CENTURY AVE	\$0	\$0	\$0	\$0	\$0
SANITARY SEWER EXTENSTION & LINING AREAS			\$1,330,686	\$0	\$75,831	\$0	\$1,406,517
ESTIMATED CONSTRUCTION COST			\$5,947,693	\$4,900,683	\$3,222,295	\$2,060,018	\$16,130,689
Construction Contingency			\$594,769	\$490,068	\$322,230	\$206,002	\$1,613,069
ESTIMATED CONSTRUCTION + CONTINGENCY			\$6,542,462	\$5,390,751	\$3,544,525	\$2,266,020	\$17,743,758
Land Acquisition			\$0	\$0	\$10,000	\$0	\$10,000
Engineering			\$1,189,539	\$980,137	\$644,459	\$412,004	\$3,226,138
Assessment Process and Staking Services			\$44,608	\$36,755	\$24,167	\$15,450	\$120,980
Legal and Admin			\$104,085	\$85,762	\$56,390	\$36,050	\$282,287
Testing			\$47,582	\$39,205	\$25,778	\$16,480	\$129,046
Non-Construction Cost Subtotal			\$1,385,812	\$1,141,859	\$760,795	\$479,984	\$3,768,451
Interim Interest			\$204,549	\$168,541	\$111,077	\$70,847	\$555,015
Estimated Total Capital Cost			\$8,132,824	\$6,701,152	\$4,416,397	\$2,816,851	\$22,067,224

Table 4-3 – Well Rehabilitation and Raw Water Main Construction Costs

Item	Estimated Cost
Well 1 Rehabilitation	\$150,000
Well 2 Rehabilitation	\$120,000
Raw Water Main	\$0
Construction Contingency	\$67,500
Estimated Total Construction Cost	\$337,500

Table 4-4 – Well Rehabilitation and Raw Water Main Non-Construction Costs

Item	Estimated Cost
Engineering	\$48,600
Legal & Admin	\$6,800
Materials Testing	\$2,200
Interim Interest	\$10,200
Estimated Total Non-Construction Cost	\$67,800

Table 4-17 – Proposed Wastewater Construction Costs

Item	Estimated Cost
Cleveland Lift Station	\$317,500
Main Lift Station	\$35,000
Pond Improvements	\$247,000
Estimated Total Construction Cost	\$599,500

Table 6-2 – Preferred Alternatives Total Project Cost

Item	Well Rehab	Water Storage Tank & Pump Station	Pressure Filter WTP	Streets, Distribution, Collection and Storm	Wastewater	Totals
Construction Cost	\$270,000	\$0	\$0	\$16,130,689	\$599,500	\$17,000,189
Construction Contingency	\$67,500	\$0	\$0	\$1,613,069	\$59,950	\$1,740,519
Estimated Total Construction Cost	\$337,500	\$0	\$0	\$17,743,758	\$659,450	\$18,740,708
Land Acquisition	\$0	\$0	\$0	\$10,000	\$25,000	\$35,000
Engineering	\$48,600	\$0	\$0	\$3,226,138	\$131,890	\$3,406,628
Assessment Process and Staking Services	\$0	\$0	\$0	\$120,980	\$0	\$120,980
Legal and Admin	\$6,800	\$0	\$0	\$282,287	\$14,988	\$304,075
Testing	\$2,200	\$0	\$0	\$129,046	\$4,796	\$136,042
Non-Construction Cost Subtotal	\$57,600	\$0	\$0	\$3,768,451	\$176,674	\$4,002,724
Interim Interest	\$10,200	\$0	\$0	\$555,015	\$21,572	\$586,787
Estimated Total Capital Cost	\$405,300	\$0	\$0	\$22,067,224	\$857,695	\$23,330,220

Project Cost and Financial Breakout for Proposed Project

Items	Estimated Construction Cost				
	Wastewater Eligible	Water Eligible	Storm Eligible	City Cost (Not Eligible)	Total
Sanitary Collection, Water Distribution, and Storm Sewer	\$5,947,693	\$4,900,683	\$3,222,295	\$2,060,018	\$16,130,689
Cleveland Lift Station	\$317,500	\$0	\$0	\$0	\$317,500
Main Lift Station	\$35,000	\$0	\$0	\$0	\$35,000
Pond Improvements	\$247,000	\$0	\$0	\$0	\$247,000
Well Rehab	\$0	\$270,000	\$0	\$0	\$270,000
Water Storage Tank & Pump Station	\$0	\$0	\$0	\$0	\$0
Pressure Filter WTP	\$0	\$0	\$0	\$0	\$0
ESTIMATED CONSTRUCTION COST	\$6,547,193	\$5,170,683	\$3,222,295	\$2,060,018	\$17,000,189
Construction Contingency	\$654,719	\$557,568	\$322,230	\$206,002	\$1,740,519
ESTIMATED CONSTRUCTION + CONTINGENCY	\$7,201,912	\$5,728,251	\$3,544,525	\$2,266,020	\$18,740,708
Land Acquisition	\$25,000	\$0	\$10,000	\$0	\$35,000
Engineering	\$1,321,429	\$1,028,737	\$644,459	\$412,004	\$3,406,628
Assessment Process and Staking Services	\$44,608	\$36,755	\$24,167	\$15,450	\$120,980
Legal and Admin	\$119,075	\$92,562	\$56,390	\$36,050	\$304,077
Testing	\$52,378	\$41,405	\$25,778	\$16,480	\$136,042
Non-Construction Cost Subtotal	\$1,562,488	\$1,199,459	\$760,795	\$479,984	\$4,002,727
Interim Interest	\$226,122	\$178,735	\$111,077	\$70,847	\$586,781
Estimated Total Capital Cost	\$8,990,522	\$7,106,446	\$4,416,397	\$2,816,851	\$23,330,220
Annual O&M Expenses	\$88,237*	\$105,727*	\$20,065*	N/A	\$214,029*
Annual SLA Reserve	\$5,713**	\$8,881**	N/A	N/A	\$14,594**
# Equivalent Dwelling Units	***	***	***	***	***
Notes: * See new Projected Utility O&M Costs table below for additional information ** See updated Table 6-5 below and Table 6-6 from the PER for additional information *** There are 433 EDU's in Silver Lake. See Section 2.4 of the PER for additional information					

Detailed Wastewater Improvements Cost Estimates

Stabilization Ponds	Unit	Unit Price	Est. Qty.	Cost
Boat ramps for alum addition	EACH	\$10,000.00	1	\$10,000.00
Duck boat and motor	EACH	\$20,000.00	1	\$20,000.00
Chemical storage shed	EACH	\$15,000.00	1	\$15,000.00
Remove sludge buildup (mobilization, dredging and	CU YD	\$35.00	2000	\$70,000.00
Additional rip rap (Class 3)	CU YD	\$75.00	2500	\$187,500.00
Rolling vehicle gate	EACH	\$9,000.00	1	\$9,000.00
Fence replacement	LF	\$35.00	4000	\$140,000.00
Additional gravel for dike	TON	\$28.00	1000	\$28,000.00
Pond Pumping for Construction	LUMP SUM	\$20,000.00	1	\$20,000.00
Primary Pond Splitter Box	LUMP SUM	\$25,000.00	1	\$25,000.00
Transfer Structures replacement	LUMP SUM	\$12,000.00	1	\$12,000.00
Outlet Structure	LUMP SUM	\$25,000.00	3	\$75,000.00
Primary Pond Control Structure	LUMP SUM	\$25,000.00	1	\$25,000.00
Secondary Pond Control Structure	LUMP SUM	\$25,000.00	1	\$25,000.00
Replace Influent Piping (10" pipes)	LF	\$40.00	900	\$36,000.00
Stabilization Ponds Cost Subtotal				\$247,000.00

Cleveland Lift Station Improvements	Unit	Unit Price	Est. Qty.	Cost
Remove existing pump station (wetwell, valve vault, piping, valves, control building, pumps)	LUMP SUM	\$50,000.00	1	\$50,000.00
Basket Screen	LUMP SUM	\$3,000.00	1	\$3,000.00
Gantry Crane (Frame and electric hoist)	LUMP SUM	\$6,500.00	1	\$6,500.00
96" Diameter RCP Wetwell	EACH	\$15,000.00	1	\$15,000.00
72" Diameter RCP Valve Vault	EACH	\$8,000.00	1	\$8,000.00
Coating on wetwell	SQ FT	\$25.00	450	\$11,250.00
6" Check Valves	EACH	\$500.00	2	\$1,000.00
6" Plug Valves	EACH	\$500.00	2	\$1,000.00
6" Vent Pipe	LUMP SUM	\$1,000.00	1	\$1,000.00
Floor boxes for Valve Vault Cover Slab	EACH	\$500.00	2	\$1,000.00
Pumps	EACH	\$14,140.00	2	\$42,000.00
Generator	EACH	\$75,000.00	1	\$75,000.00
Meter Manhole	LUMP SUM	\$10,000.00	1	\$10,000.00
Dewatering	LUMP SUM	\$30,000.00	1	\$30,000.00
Bypass pumping	LUMP SUM	\$25,000.00	1	\$25,000.00
Site lighting	LUMP SUM	\$3,000.00	1	\$3,000.00
Electrical and controls	LUMP SUM	\$34,913.00	1	\$34,913.00
Fencing	LF	\$35.00	200	\$7,000.00
16' Wide Rolling Gate	EACH	\$4,000.00	1	\$4,000.00
Inlet protection	EACH	\$200.00	1	\$200.00
Silt Fence, heavy duty	LIN FT	\$3.50	450	\$1,575.00
Screened topsoil borrow (LV) (6" depth)	CU YD	\$20.00	600	\$12,000.00
Turf establishment (Seed, fertilizer, hydraulic soil	SQ YD	\$3.50	1200	\$4,200.00
8" Sanitary Sewer Pipe Forcemain (C900 PVC pipe)	LIN FT	\$75.00	637	\$47,775.00
Cleveland LS Cost Subtotal				\$317,500.00

Main Lift Station Improvements	Unit	Unit Price	Est. Qty.	Cost
New pumps	EACH	\$19,000.00	2	\$56,000.00
Air release valve	EACH	\$1,000.00	3	\$3,000.00
Permanent mounted generator	LUMP SUM	\$75,000.00	1	\$75,000.00
Site lighting	LUMP SUM	\$3,000.00	1	\$3,000.00
Vent in wetwell	LUMP SUM	\$1,500.00	1	\$1,500.00
Meter Manhole	LUMP SUM	\$13,000.00	1	\$13,000.00
Plug valves	EACH	\$3,500.00	2	\$7,000.00
Electrical and Control	LUMP SUM	\$25,000.00	1	\$25,000.00
Chemical grout injection manhole joint	LUMP SUM	\$10,000.00	1	\$10,000.00
Bypass pumping	LUMP SUM	\$50,000.00	1	\$50,000.00
New top slab/hatch on valve vault	EACH	\$5,000.00	1	\$5,000.00
Main LS Cost Subtotal				\$35,000.00

Legend:

Omitted from the project (to be included in future project).
Omitted from the project as the City has recently purchased these items and can utilize in this project.
Remaining line items.
Line item added following additional conversations with the City and People Service.

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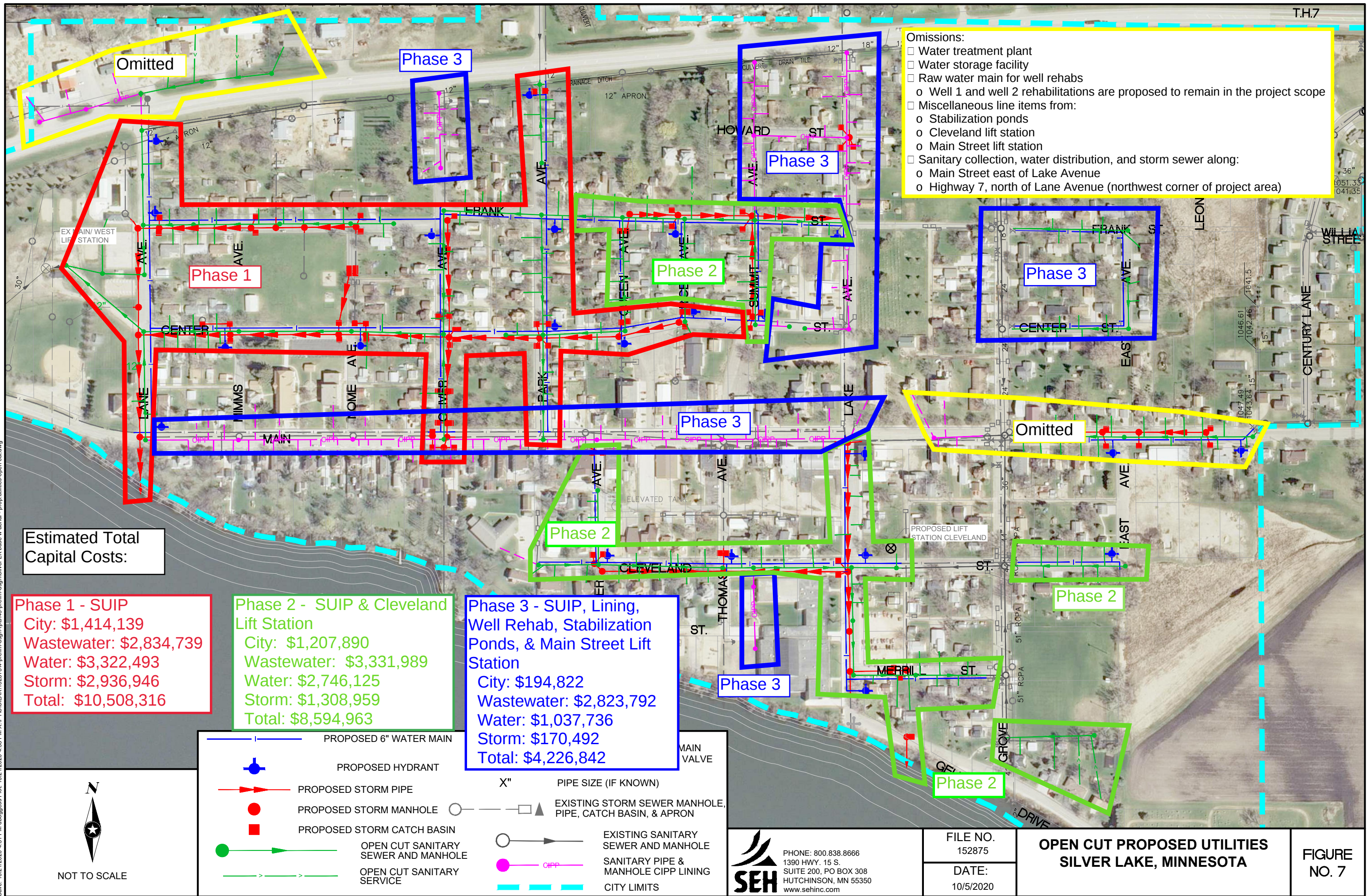


Table 2-13 – Historical Utility O&M Costs

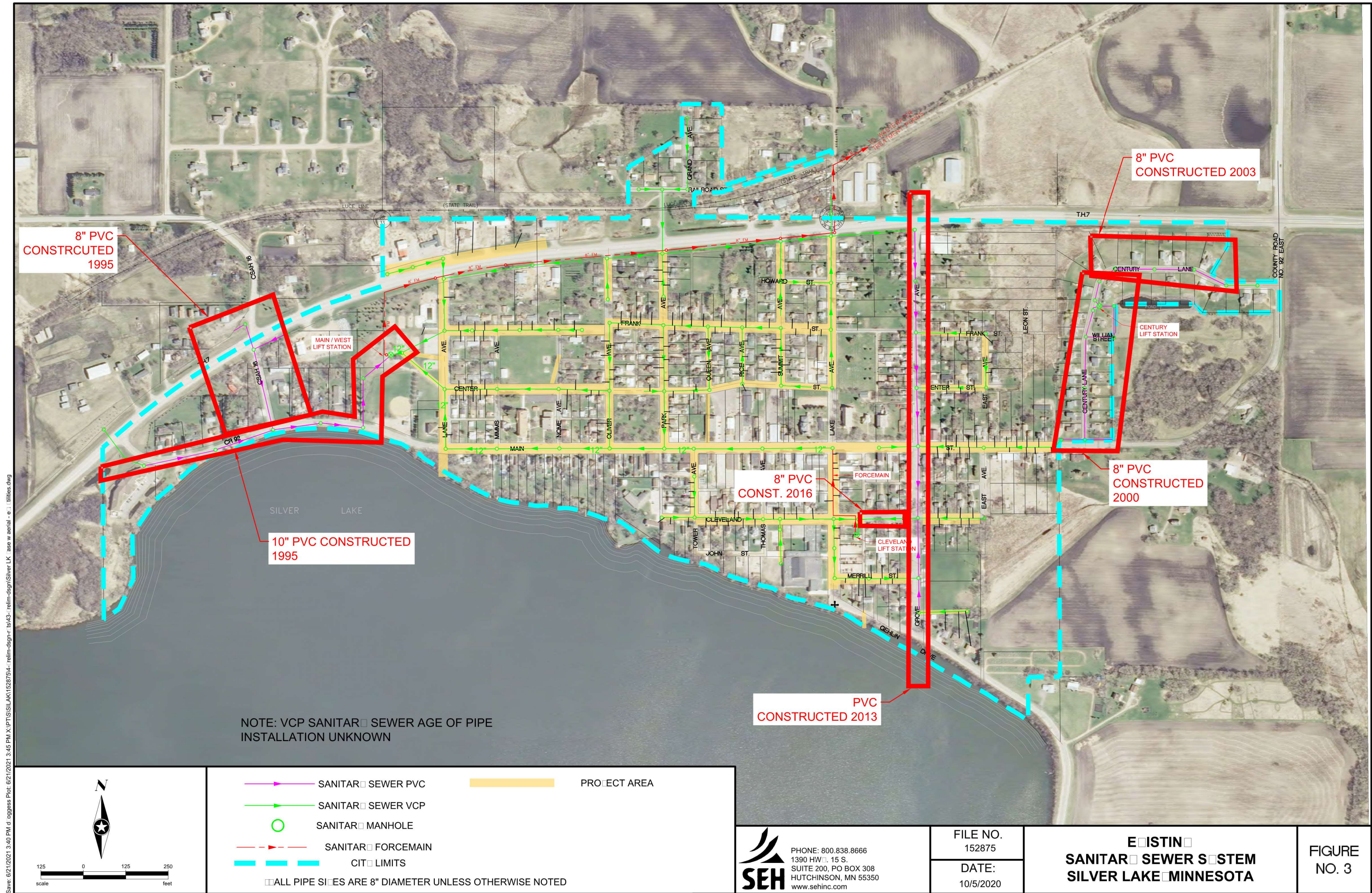
Year	Water	Wastewater	Storm	Total
2017	\$51,723	\$83,186	\$2,056	\$136,965
2018	\$61,834	\$56,904	\$26,856	\$145,593
2019	\$78,547	\$90,091	\$14,772	\$183,411
Averages	\$64,035	\$76,727	\$14,561	\$155,323

Projected Utility O&M Costs

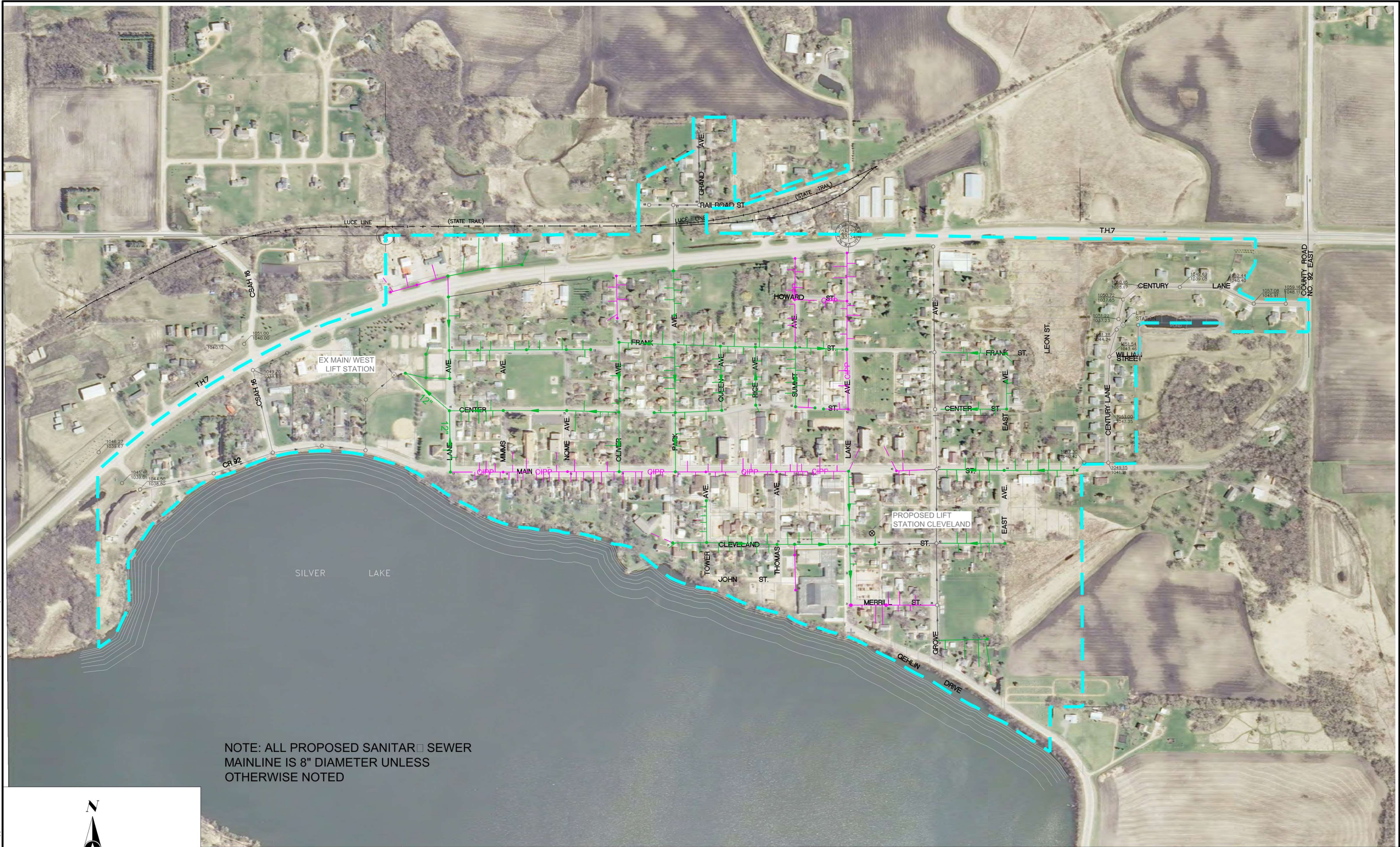
Year	Water	Wastewater	Storm	Total
2020	\$67,236	\$80,563	\$15,290	\$163,089
2021	\$70,598	\$84,591	\$16,054	\$171,244
2022	\$74,128	\$88,821	\$16,857	\$179,806
2023	\$77,835	\$93,262	\$17,700	\$188,796
2024	\$81,726	\$97,925	\$18,585	\$198,236
2025	\$85,813	\$102,821	\$19,514	\$208,148
2026	\$90,103	\$107,962	\$20,489	\$218,555
2027	\$94,608	\$113,361	\$21,514	\$229,483
2028	\$99,339	\$119,029	\$22,590	\$240,957
Total O&M Costs Through Final Completion (2023-2028)	\$529,424	\$634,360	\$120,391	\$1,284,175
Annual O&M Costs Through Final Completion (2023-2028)	\$88,237	\$105,727	\$20,065	\$214,029

Table 6-5 – Water Short Lived Assets

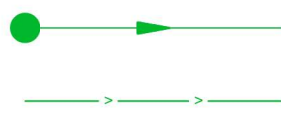
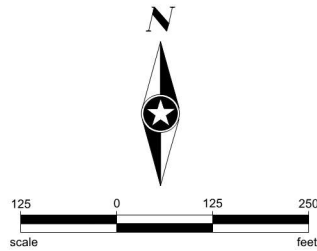
Year	Improvement	Quantity	2020 Cost per Improvement	3% Inflation per Improvement	Total Cost
1-5 Years					
	Storage Tank: Drain, Inspect, Remove Sediment	1	\$5,000.00	\$5,796	\$5,796
	WTP Dehumidifiers	0	\$3,500.00	\$4,057	\$0
	Chlorine System Gas Detector Replacement	1	\$1,000.00	\$1,159	\$1,159
	Total Years 1-5				\$6,956
	Annual Cost Years 1-5				\$1,391
6-10 Years					
	Storage Tank Exterior wash and spot repair coatings	1	\$7,500	\$10,079	\$10,079
	Flow Meter Calibration	2	\$500	\$672	\$1,344
	Water Testing Equipment Replacement	1	\$2,500.00	\$3,360	\$3,360
	Line Tracing Equipment Replacement	1	\$3,000.00	\$4,032	\$4,032
	Total Years 6-10				\$18,815
	Annual Cost Years 6-10				\$1,881
11- 15 Years					
	Well Rehab	2	\$10,000	\$15,580	\$31,159
	Water Tank Dive Clean and Repair Coatings	1	\$10,000	\$15,580	\$15,580
	Flow Meter Replacement	2	\$4,500	\$7,011	\$14,022
	Well Controls Replacement	1	\$15,000	\$23,370	\$23,370
	Backwash Pump Repair	0	\$10,000.00	\$15,580	\$0
	High Service Pump Repair	0	\$10,000	\$15,580	\$0
	Blower Maintenance	0	\$7,500.00	\$11,685	\$0
	Air compressor maintenance	0	\$2,500	\$3,895	\$0
	Replace Storage Tank Mixer	0	\$10,000	\$15,580	\$0
	Water Heater	0	\$2,000	\$3,116	\$0
	Pressure filter vessel rehab	0	\$200,000	\$311,593	\$0
	Doors	0	\$5,000	\$7,790	\$0
	Fluoride feed system	0	\$5,000	\$7,790	\$0
	Sodium permanganate feed system	0	\$5,000	\$6,720	\$0
	Chlorine feed system	0	\$5,000	\$6,720	\$0
	Total Years 11-15				\$84,130
	Annual Cost Years 11-15				\$5,609
Total Annual Cost					\$8,881
Highlighted items have been omitted based on updated project scope.					



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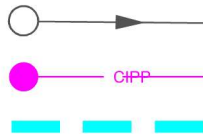


NOTE: ALL PROPOSED SANITARY SEWER
MAINLINE IS 8" DIAMETER UNLESS
OTHERWISE NOTED



OPEN CUT SANITARY SEWER AND MANHOLE

OPEN CUT SANITARY SERVICE



EXISTING SANITARY SEWER AND MANHOLE
SANITARY PIPE & MANHOLE CIPP LINING
CITY LIMITS



PHONE: 800.838.8666
1390 HWY. 15 S.
SUITE 200, PO BOX 308
HUTCHINSON, MN 55350
www.sehinc.com

FILE NO.
152875

DATE:
10/5/2020

OPEN CUT ALTERNATIVE
SANITARY SEWER SYSTEM
SILVER LAKE MINNESOTA

FIGURE
NO. 8